Products, Systems That Drew Top Reader Response p. 30

A CAHNERS PUBLICATION

DECEMBER 1991

SECURITY®

THE MAGAZINE FOR SECURITY DECISION MAKERS

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Josh Harris, CPP
Security Manager
Nike Inc.

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SECURITY NEWS

Reports and incidents that impact security.

TRAINING

Battle For Attendance

In the battle for exhibit attendance, the New York City International Security Conference (ISC) is a clear 1991 winner over the American Society for Industrial Security (ASIS) show in Orlando.

Audited attendance at ISC in New York included 4,861 advanced registered and 2,962 on-site registrants — for a total of 7,823. A press release from ASIS included 3,176 registered attendees with 2,367 exhibit viewing only — for a total of 5,543.

The International Security Conference (ISC), held in New York City, drew 41 percent more attendees than the ASIS exhibit this year.

MONITORING

Venture Money Captures Large Alarm Firm

In mid-September, an investor group that includes Alan Patricof Associates and Morgan Stanley Venture Partners acquired Protection One Alarm Services, which operates in the western states. IHG Capital Corp. of New York and Larrabee Ventures Inc. structured the transaction and arranged financing. "Protection One will serve as a flagship...a base on which to grow," said Tom Berardino, an IHG partner. "With its commitment, we will have plenty of opportunities for expansion."

SCREENING

Officer Averts Baby-napping

In late September, a security officer working at Tulsa's St. John Medical Center seized Kathy Lynn Brown, a former employee while another officer grabbed the newborn Brown was allegedly trying to abduct. A few minutes before, the child's mother reported the newborn was taken from her by "a person dressed in hospital scrubs."

RETAIL

Retail's Hays Has Prevention Advice

Retail Security and Loss Prevention from Butterworth-Heinemann offers retail security help to combat theft and other loss-causing situations. It's authored by Read Hayes, CPP, CST, security consultant with LP Specialists, Winter Park, Fla. He has spent over 14 years in retail loss prevention. The 268-page hard-cover is $45. Order: (800) 366-2665.

Read Hayes has published a new book on retail security.

INFO SECURITY

Martin Marietta Wins CSI's Security Award

The information security program at Martin Marietta's Electronics, Information and Missiles Group has received the first annual Computer Security Institute (CSI) Security Program of the Year Award. According to CSI, the award recognizes superior achievement of a corporate information security program.

BRIEFS

Joseph H. Olmstead Jr., of Security Products Marketing, Encinitas, Calif., will promote and create new markets for Automated Security (Holdings) PLC of London. The company recently introduced its TVX security system — a camera on a chip design used in alarm verification for reduction of false alarms. ☐ **Security Education Systems** of Forestville, Calif., has released the third edition of its Disaster Management Planning Manual available in text-only and text-and-software versions. ☐ **IRT Corp.** of San Diego, Calif., completed acquisition of proprietary security technology from AGS Corp. IRT will incorporate the technology into a personnel scanner that detects and locates concealed metallic and non-metallic objects. ☐ **Stellar Systems**, Santa Clara, Calif., was sold by The Wackenhut Corp. in late September to a group of investors. Steller makes and distributes electronic perimeter security systems. ☐ **PC Security**, trading as Westec Security Systems in many markets, has name-changed to Vector Security of Pittsburgh.

STEALING INFORMATION
Companies reporting theft or attempted theft of information:
No 63%
Yes 37%
Source: ASIS Committee on Safeguarding Proprietary Info.

As the value of information increases, so does theft of it, according to an ASIS study.

Digital CCTV— It's a Revolution

Specifications change as digital brings features, connections, pressure to retrofit analog CCTV.

New Digital CCTV Offerings

Still Image Recorder/Player

The AG-810 Still Image Video Recorder/Player has Y/C inputs and outputs and composite video inputs and outputs. The unit can record up to 50 color images on a single two inch floppy disk and uses any television or monitor to display

images of up to 350 lines of resolution. Records from standard NTSC signal; controlled by computer via an optional RS-232C interface. — *Panasonic Audio Video Systems Group*

For information circle **302**

Fiber Optic Tool Kit

Jensen's 1992 Master Catalog includes a new tool kit — the JTK-4000 — provides devices for terminating fiber optic cable regardless of the connector manufacturer. Included are most of the tools and supplies used by field service technicians. All are contained in an organizing case. The kit avoids the alternative of buying costly termination kits from the connector manufacturer. — *Jensen Tools Inc.*

For information circle **303**

Microprocessor Camera Control

The MPC Series Microprocessor Camera Control System from Cohu has power and data-line surge suppression to protect circuitry from potentially harmful voltage surges. The MPC can be incorporated into fully integrated systems which could include detection sensors, access control, fire monitoring and energy control. It supports fiber optic, standard coax and microwave. — *Cohu Inc.*

For information circle **304**

Adjustment Free Fiber System Option

The AGC-PLUS is an adjustment free option to FIBERVISION, which automatically self-adjusts a level control circuit that maintains a constant 1 volt pp video output regardless of fiber optic cable attenuation, LED aging, degrading splices or any other factor affecting total optical attenuation between transmitters and receivers. LEDs continuously indicate the presence of video signals as well as operation of both transmitter and receiver. — *Math Associates Inc.*

For information circle **305**

Fiber Optic Video Micro Transmitter

Powered by the camera or 12 VDC, the PT-100u from Meridian

Technologies is 1.5 inches in length and .5 inch diameter. Specifications of the transmitter include: 15 MHz bandwidth, >67dB signal-to-noise ratio, 26dB loss budget (5 miles, 8 Km) w/50 micron fiber and 34dB dynamic range (AGC). — *Meridian Technologies*

For information circle **306**

By Bill Zalud
Editor

Digital video is one of today's omnipotent trends in security's expanding use of closed circuit television systems (CCTV).

Digital video will revolutionize television — the most pervasive communication medium. Already, high definition TV, years away, has accelerated bickering between U.S. and Japanese industry players.

Digital video will speed use of business videoconferencing, desktop publishing, video telephones, interactive systems and electronic cameras. It will also significantly impact security as its computer reliance encourages integration and eases transmission of signals.

Dazzling Array

So it's understandable that CCTV manufacturers and integrators now offer a dazzling array of products and systems driven by an equally dizzying parade of technologies.

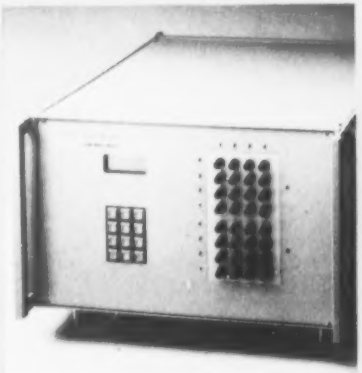
Digital technology speeds up integration.

End users want: increased observation and recording, better identification, more automation as well as "beyond-surveillance" applications such as access control and process control. Also emerging: more efficient ways to integrate CCTV into a total systems' approach.

CCTV suppliers are cranking up picture quality and camera sensitivity; moving from black and white to color; offering more transmission methods; downsizing for concealment and portability; encouraging productivity gains with combined-purpose cabling; expanding with slow-scan remote monitoring; and increasing use of matrix-

Photonic Switching for Network

The Star-Switch Model 1600 is an enhanced version of Astarte Fiber Networks' photonic switching technology. The Model 1600 offers fiber optic facility management and routing features not currently



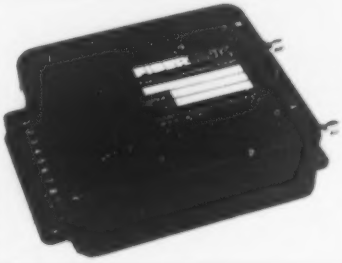
available to private, public or broadcast networks, according to the manufacturer. It automates the process of manually configuring fiber networks and eliminates the requirement for expensive electro-optical converters currently used in fiber optic switching. — *Astarte Fiber Networks Inc.*

For information circle **308**

RS-485 Data Interface

The MX/RX Data Interface is a remote mountable module that converts two or four wire RS-485 data signals into modulated light for coupling into fiber optic cables. The device transmits and receives high and low logic level data and the HiZ bus state through duplex fiber optic cables. Comes in module or rack card for either 50/125u or 62.5/125u fiber. — *American Fibertek Inc.*

For information circle **311**



HyperScan Sends Photos

High speed, high quality phoneline picture transmission is the aim of the new HyperScan system from Robot Research Inc. It transmits pictures to an IBM or compatible PC with VGA Monitor via regular phoneline, radio or cellular links. The phoneline picture transmission system consists of: TX40 digital picture transmitter; RX40 digital picture receiver disk; and high speed, error-correcting modems. The transmitters can be linked for multiple sites. — *Robot Research Inc.*

For information circle **309**

Digital Time Lapse

The BV-1300 Digital Audio Time Lapse Recorder from Mitsubishi features up to 240 hours of digitally compressed auto with 480 hours of time lapse video. There's also: on-screen programming, alarm indexing with easy cue and VHS compatibility. — *Mitsubishi Electronics America Inc.*

For information circle **307**

Tri-state Fiber Transmission System

A new Digital RS-422/485 Tri-state Fiber Optic Transmission System — the FIBERLINK XR-2100 — transmits EIA tri-state signals of RS-422 and RS-485 via fiber optic cable over distances of up to 3 Km. Compatible with data rates from 0 to 100 Kbits per second. The system accurately transmits the logic 0, logic 1 and high impedance state in full duplex. — *Math Associates Inc.*

For information circle **310**

TRANSMISSION METHODS
Which Do You Currently Use?

Coaxial Cable	83.8%
Fiber Optics	23.2%
Microwave	15.2%
Twisted Pair	9.1%
Twisted Pair/Slow Scan	6.1%
Infrared Laser	4.0%
Wireless	3.0%
Don't Know/use	6.1%

Source: SECURITY Magazine

Coax dominates CCTV transmission methods. More than 100% because of multiple responses.

switching and time-lapse.

The transition from analog to digital also matches global changes within the security profession. It complements the transition of security to asset management as well as the flow of organizations from stand-alone functional territories to one seamless, synergistic information system.

Integration of Systems

The foundation of this revolutionary transformation is computer processing — data collection, sharing, storage, retrieval and analysis. Pictures, as music before it, are turning into computer-manipulated data.

Memory Obstacle

There are some obstacles to this digital nirvana.

On the technology side, turning pictures into digitized computer form takes a lot — an awful lot — of memory. Motion, for example, becomes smooth when images change at least 30

Video motion detection shows off digital benefits.

frames a second. So one minute of smooth-motion digital video requires a little under two billion bytes of memory storage!

Manufacturers are beginning to overcome this obstacle with high compression. Mathematically removing what the human eye doesn't see anyway and reducing scene redundancies compresses digital images.

On the installation side, most secu-

CD Takeover Heralds Digital CCTV

By John P. Stahler

There's a revolution in technology today — it's called digital.

Take the music industry, for example. Not many years ago, when you wanted to listen to music, you went to your record collection to remove a large, fragile, vinyl disk. An analog-dependent system would mimic the recorded sound.

Music is Information

Today, however, the rapid explosion of the compact disk (CD) takes music and encodes it as data or a string of digits. The digital data can then be manipulated by hardware circuits or processed by a microcomputer through software.

Such a quick history of the compact disk illustrates benefits of digital technology in security.

Pictures Are Information, Too

Digital technology allows you to do more with cameras and monitors — the traditional analog tools of CCTV. Digital technology converts the camera's video signals into digital data. A string of numbers is created which represents the brightness and color/shade of each of picture point. Each point in each of the camera's video signals gets representative numbers, or "digital data."

Power to Manipulate

You can manipulate and re-group digital data. Pictures from multiple cameras can display on a single monitor for ease of viewing or recording. This is "digital quad," because it displays a different camera in each of the monitor's four quadrants. If you want a full screen image from one camera, "shuffle" the numbers to enlarge the image for full screen display. The numbers can even be manipulated to enhance identification.

In effect, digital technology takes pictures and turns them into numbers which are easily rearranged and recreated in different formats. Users can view surveillance areas in formats convenient to their application needs.

Digital video sequencers allow multiple camera images to be shuffled like a deck of cards and stored on one video recorder.

The pictures from any one camera can be called up for viewing, just like pulling a card out of the deck. This eliminates the need to buy one VCR per camera in large installations.

Transmission Flexibility

Digital phoneline picture transmission technology converts a camera's video information to digital data which can be stored in a personal computer's memory. You can send this digital data by modem over ordinary telephone lines. A receiving unit reconstructs a pixel perfect picture at a location thousands of miles away.

Digital phoneline transmission creates a new market of long distance video monitoring applications.

Clearer Playback, More Info

Digital technology in VCRs allows the playback of flicker-free, low-noise, still images. The images are digitized and, therefore, more precise.

You can easily overlay information such as alarm events, camera titles and time and date information on top of playback. Digital cash registers and automated tellers (ATMs) can overlay transaction information over video

rity operations have systems or critical components that are digital unfriendly. Most are just now experimenting with interfacing security systems. Therefore, the buyer transition to digital will proceed slowly but surely, accelerating where a solid business case encourages cost or labor savings.

One incentive is improvement in picture quality. The connection — conductors and wires — among closed circuit television system components is a constant cause of problems. Many times, interference manifests in loss of picture quality — tearing or a flag condition at the top of a monitor screen. The evolution to digital will reduce such problems.

Some Areas Ahead of Others

Digital's impact, however, is felt today in some particular CCTV areas. These include: computerized system controls and matrix switching; video motion detection; search, edit and titling capabilities of recorders; and remote monitoring applications where transmission is important. The evolution of the camera into a chip-bound digital collection unit also is underway.

Users already embrace a variety of these improvements, according to a national telephone survey conducted by SECURITY Magazine and National Guardian Security Services Corp. According to the survey, CCTV purchasing will focus on video motion detection, slow scan and quad/switched quad approaches.

Transmission Gains

One place where digital can make a big difference quickly is video transmission. The migration is from analog-dependent coaxial cable to a diversity of transmission methods. For example:

Twisted pair — companies now can squeeze more out of their existing wiring or take advantage of less expensive twisted pair installation.

Coax — two-way transmission of picture and controls with more applications-specific computers at both ends of the transmission.

Fiber optic — cleaner transmission that can handle more traffic. Fiber optic is the highway over which Integrated Systems Digital Network (ISDN) will one day switch traffic.

Wireless — the ultimate in installation ease, wireless will get a boost from digital as specifiers become more comfortable with it. □

THE SECURITY EVOLUTION

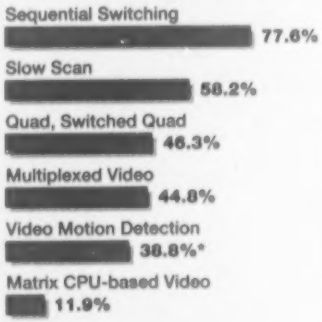
	Yesterday	Today	Tomorrow
Function	Security	Asset Protection	Resource Management
Concept	Stand-alone	Interfacing	Integration
Staffing	Proprietary	Hybrid – Proprietary and Contract	In-house Consultant; Facilities Management Services
Technology	Mechanicals; Analog; Electronics	Electronics; Mechanicals; Networks; Digital	Digital; Networks; Software; Electronics; Mechanicals

Source: SECURITY Magazine

The digital revolution is part of a larger picture of electronics, computers and communication improvements.

CCTV SYSTEMS PENETRATION

Percent of users with:



* Top 1991 Buy

Source: SECURITY Magazine and National Guardian Security Services Corp.

Retail paces other users with sophisticated CCTV. Next generation video motion detection gets boost.

images recorded or monitored.

Control Advantages

Digital technology is now in elaborate control systems. Systems now command distant cameras to zoom in, or pan and tilt to follow an object — all over one video cable. Expensive, labor-intensive camera control cables are history.

A Digital Future

In the future, new features which suit growing and changing user needs will be created through software updates. Digital video applications will enable transmission of live motion pictures to any place in the world over ordinary telephone lines.

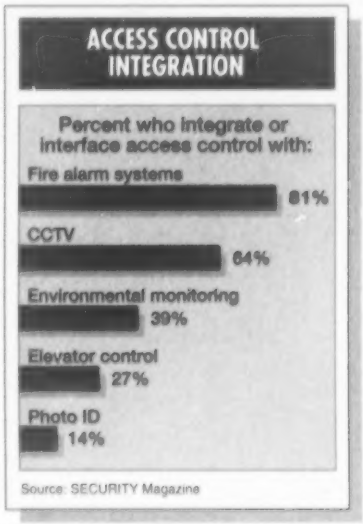
Cameras will not only look at an intruder, they will also perform an identification process. Cameras will automatically track the movement of intruders.

Alarm systems will be more automated and reliable. As intelligence is built in, alarm systems will evaluate alarm situations much like a person does. Smart access control systems will allow more automated — and less human-managed — access to facilities.

John P. Stahler is president and chief executive officer of Robot Research, San Diego, Calif.

SECURITY INDICATORS

Trends and forecasts for determining loss prevention needs.



Electronic access control integrates with fire alarm systems most often.

INTEGRATED SYSTEMS

Retail Installations Typically Link Access, Fire, CCTV

Retail is king when it comes to access control integration.

Among respondents to a recent national SECURITY Magazine telephone survey, 100 percent of retail electronic access control system owners integrate this function with fire alarm and CCTV technologies. On average, 81 percent of those representing all segments integrate access control with fire; 64 percent interface to CCTV.

Industry, government and institutions usually integrate access control with fire alarm systems and monitoring of discrete security points. Finance — like retail — mostly chooses to integrate access with fire alarm systems and CCTV.

On average, 44 percent of responding segments integrate electronic access control with security subsystems; here industry leads at 57 percent.

SERVICES

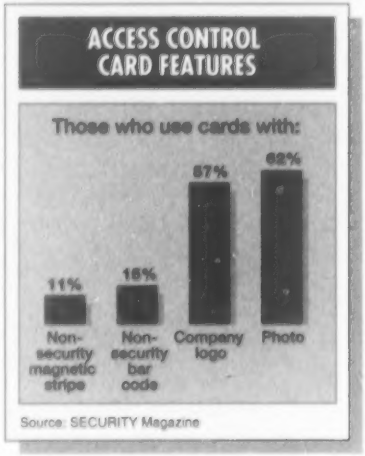
U.S. Services Market To Jump 80 Percent Yearly

The U.S. market for security services will grow to nearly $19 billion through 1995, says *Private Security Services*, a study from The Freedonia Group, Cleveland.

Security breaches and associated losses make all economic sectors high-growth markets, the study says. It also predicts that further penetration of residential, institutional and transportation sector markets will be the primary growth catalysts.

Edward Hester, the study's author, anticipates that consolidation in alarm monitoring and armored car transport segments will relieve the intense price competition prevalent since the mid-1980s. This — coupled with greater use of computer-based service delivery techniques and operations streamlining — will result in enhanced profits even as revenue growth slows, Hester forecasts. He also predicts that many marginal service players will close their doors.

Officers and investigations will dominate service revenues through 1995.



Most access cards are photo ID cards as well.

ACCESS CONTROL

Cards Unite Industry's Access, ID Tasks

Few access cards are used solely for entry, especially in industrial applications.

A recent national SECURITY Magazine telephone survey finds that most access cards — 62 percent — serve as photo identification cards as well. Among industrial respondents, 75 percent combine photos with access cards. This segment is also most likely to use extra bar codes or magnetic stripes for non-security uses: 22 percent of industrial respondents use extra bar codes, 19 percent extra magnetic stripes.

Company logos are another popular access card feature. Retail uses them most, at 71 percent.

The larger the organization, the more likely it adds photos or other features to access cards. On average, 55 percent of organizations employing less than 500 people use photo-access cards, versus 75 percent employing 5,000 or more. Among firms employing fewer than 500, 14 percent use no-frills access cards.

Nearly half of surveyed organizations' cards — 49 percent — feature a return postage guarantee.